



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,796	08/29/2003	Hidetaka Kodama	MAE 185 D1 C1	7443

7590 08/16/2006

Rabin & Berdo, P.C.
Suite 500
1101 14th Street, N.W.
Washington, DC 20005

EXAMINER

NGUYEN, JENNIFER T

ART UNIT	PAPER NUMBER
----------	--------------

2629

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Supplemental

Office Action Summary

Application No.

10/650,796

Applicant(s)

KODAMA ET AL.

Examiner

Jennifer T. Nguyen

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is responsive to a request a new Office action upon consideration of a preliminary amendment filed 06/29/06.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Patent No. US 6,642,916 (claim 1)	Application 10/650,796 (claims 35-37)
A driving circuit for driving a liquid-crystal display, the display having a matrix of first signal lines aligned in a first direction and second signal lines aligned in a second direction transverse to the first direction, a plurality of switching elements controlled by the first signal lines, disposed at intersections of the first signal lines with the second signal lines, and a plurality of liquid-crystal capacitors disposed at said intersections and coupled through said switching elements to the second signal lines;	A driving circuit for driving a liquid-crystal display having a matrix of first signal lines aligned in one direction and second signal lines aligned in another direction, a plurality of switching elements controlled by the first signal lines, disposed at intersections of the first signal lines with the second signal lines, and a plurality of liquid-crystal capacitors disposed at said intersections and coupled through said switching elements to the second signal lines (claim 36);
a plurality of first drivers for sequentially driving said first signal lines to active and	driving said first signal lines to active and inactive levels, thereby switching said

inactive levels, thereby switching said switching elements on and off at certain transition times;	switching elements on and off at certain transition times (claim 36);
a plurality of second drivers for driving said second signal lines with signals representing picture-element intensities;	driving one of said second signal lines with signals representing picture-element intensities, to potentials on one side of a certain center potential, while a first plurality of said first signal lines, less in number than all of said first signal lines, are consecutively being driven to the active level, then driving said one of said second signal lines with signals representing picture-element intensities, to potentials on an opposite side of said center potential, while a second plurality of said first signal lines, less in number than all of said first signal lines, are consecutively being driven to the active level (claim 36).
a switching circuit coupled to a plurality of the signal lines aligned in a direction which is one of said first direction and said second direction, simultaneously disconnecting said plurality of the signal lines aligned in said one direction from their respective drivers among said first drivers and said second drivers during said transition times, and simultaneously placing the disconnected signal lines in a short-circuited state by connecting each of the disconnected signal lines to an adjacent one of the disconnected signal lines.	short-circuiting all of said second signal lines during said transition times (claim 36). short-circuiting a pair of said first signal lines when both of the first signal lines in said pair are undergoing transitions between said active and inactive levels (claim 37).

3. Claims 35-37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. US 6,642,916. Although the conflicting claims are not identical, they are not patentably distinct from each other because all the claimed limitations are encompassed by the claimed limitations in the US 6,642,916.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art, figs. 1-3 and supporting specification (hereinafter AAPA) in view of Hayashi et al. (Patent No. US 5,818,413).

Regarding claim 35, AAPA teaches a method of driving a liquid-crystal display having a matrix of first signal lines (G1-Gn) aligned in a first direction and second signal lines (S1-Sm) aligned in a second direction transverse to the first direction, a plurality of switching elements (TR11) controlled by the first signal lines, disposed at intersections of the first signal lines with the second signal lines, and a plurality of liquid-crystal capacitors (CX11) disposed at said intersections and coupled through said switching elements to said second signal lines (page 5, lines 14-33), comprising the steps of:

sequentially driving said first signal lines (G1) to active and inactive levels, thereby switching said switching elements on and off at certain transition times (page 6, lines 5-10); and

driving one of said second signal lines with signals representing picture-element intensities, to potentials on one side of a certain center potential, then driving said one of said second signal lines with signals representing picture-element intensities, to potentials on an opposite side of said center potential (page 6, lines 11-18).

AAPA differs from claim 35 in that it does not specifically teach driving one of said second signal lines while a first plurality of said first signal lines, less in number than all of said first signal lines, are consecutively being driven to the active level, then driving one of said second signal lines while a second plurality of said first signal lines, less in number than all of said first signal lines, are consecutively being driven to the active level.

Hayashi teaches driving one of said second signal lines (i.e., one line being selected at in one horizontal-scanning period) while a first plurality of said first signal lines, less in number than all of said first signal lines, are consecutively being driven to the active level (i.e., number of gate lines to be selected in one horizontal-scanning period), then driving one of said second signal lines while a second plurality of said first signal lines, less in number than all of said first signal lines, are consecutively being driven to the active level (col. 5, lines 26-31, fig. 1B). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the driving method as taught by Hayashi in the system of AAPA in order to reduce power consumption and reduce size of the display.

Regarding claim 37, AAPA teaches short-circuiting (by switching circuit 5, fig. 1B of Hayashi) a pair of said first signal lines (i.e., A1 and A2) when both of the first signal lines in said pair are undergoing transitions between said active and inactive levels (col. 5, lines 26-31).

6. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Hayashi et al. (Patent No. US 5,818,413) and further in view of Kitamura (Patent No. US 5,682,175).

Art Unit: 2629

Regarding claim 36, the combination of AAPA and Hayashi differs from claim 36 in that it does not specifically teach short-circuiting all of said second signal lines during said transition times.

Kitamura teaches short-circuiting all of said second signal lines during said transition times (col. 3, line 62 to col. 4, line 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the driving method as taught by Kitamura in the system of the combination of AAPA and Hayashi in order to provide an improved driver circuit.

7. The certified copies of priority documents were received only first pages of 10-3027338 and 10-3018532 not any contain for those foreign patents.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer T. Nguyen whose telephone number is 571-272-7696. The examiner can normally be reached on Mon-Fri: 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2629

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Nguyen
8/10/06



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600